

Description:

Ondax's 785nm, 500mW Wavelength Stabilized Laser is a multi-mode, miniature laser in a collimated 9mm TO package. The stabilization is achieved using the Ondax Volume Holographic Grating (VHG) PowerLocker®.

The laser has a very low temperature dependence and precise center wavelength over the locked region.

Features:

- Spectral linewidth (0.15nm)
- Wavelength stability (0.01nm/°C)
- Collimated 9mm TO-can package
- Custom wavelengths available

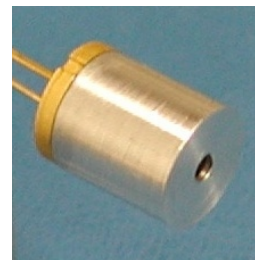
Applications:

Raman spectroscopy, sensing, metrology, medical, graphic arts, military, and analytical instrumentation.

High Power

Collimated

Narrow Linewidth



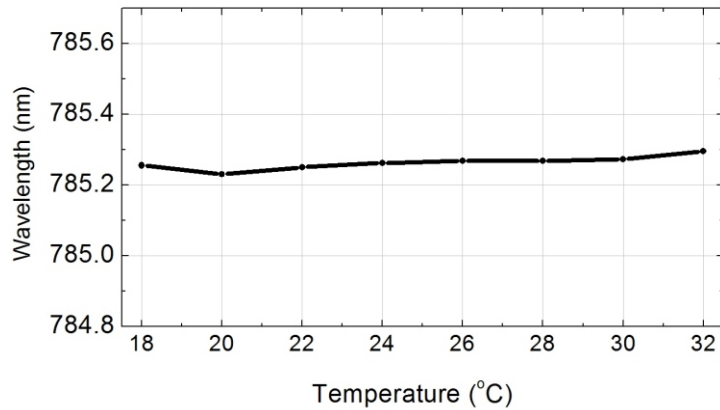
Specifications:

Operating Specifications

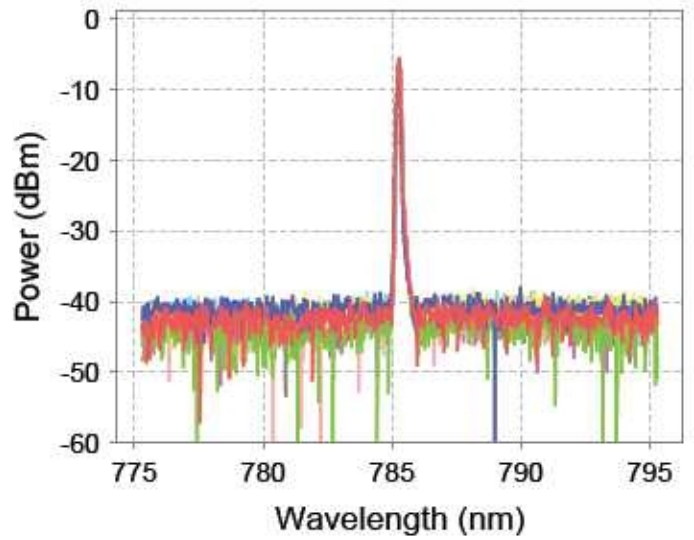
Parameter	Symbol	Conditions	Min	Typ	Max	Units
Threshold Current	I_{th}	CW		300		mA
Operating Current	I_{op}	$P_o = 500 \text{ mW}$		1000	1500	mA
Operating Voltage	V_o	$P_o = 500 \text{ mW}$		1.9	2.2	V
Lasing Wavelengths	L_p	$P_o = 500 \text{ mW}$ $T=T_c$	784.5	785	785.5	nm
Linewidth		$P_o = 500 \text{ mW}$ $T=T_c$		0.15	0.25	nm
Central Stabilized Temperature	T_c	$P_o = 500 \text{ mW}$	20		40	°C
Beam Size at Exit (Perpendicular x Parallel)		$P_o = 500 \text{ mW}$		1 x 0.5		mm
Stabilized Temperature Range	T_r	$P_o = 500 \text{ mW}$	10			°C
Beam Divergence, Perpendicular	Q_v	$P_o = 500 \text{ mW}$			0.25	deg.
Beam Divergence, Parallel	Q_h	$P_o = 500 \text{ mW}$		3.5		deg.
Emitter Size				1 X 100		um
Differential Efficiency	DE (dP/dI)			0.7		mW/mA
Storage Temperature			-20		80	°C

Specifications are with case temperature of 25 °C, unless otherwise noted.

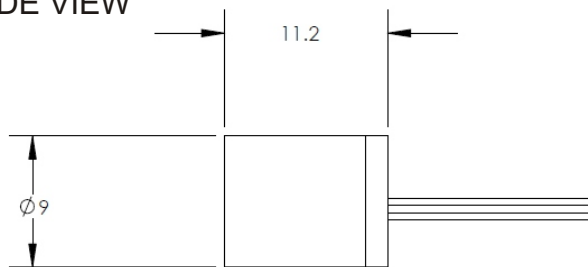
Stabilized Temperature Range
(Sample)



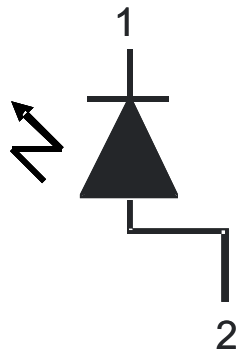
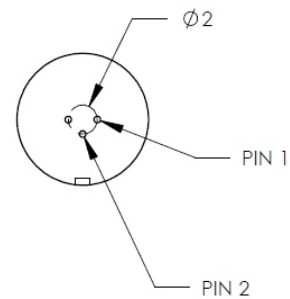
Spectrum
(Sample)



SIDE VIEW



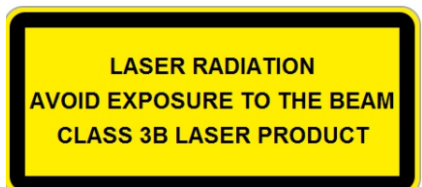
BOTTOM VIEW



Pin Out

Pin	Description
1	Laser Diode Cathode
2	Case/Laser Diode Anode

Model Numbers:
CP-785-PLR500



Specifications are subject to change without notice. Each purchased laser is provided with test data.
Please refer to this data before using the laser.

116-810XX-XXX Rev. 4